

LAKE: BASIN P (VLMP 11 )  
TOWN: FAYETTE  
COUNTY: KENNEBEC

MIDAS: 5654  
TRUE BASIN: 1  
SAMPLE STATION: 1

#### WHOLE LAKE INFORMATION

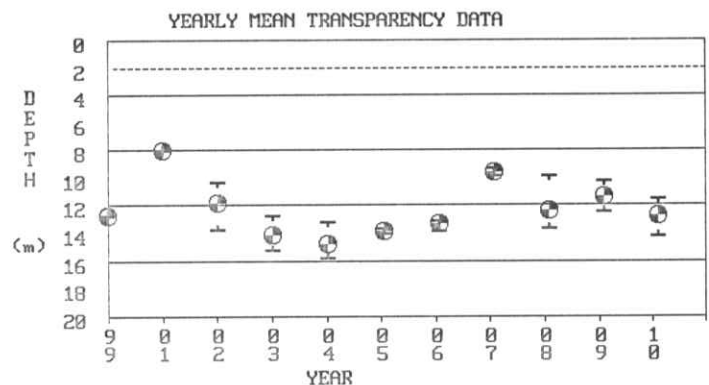
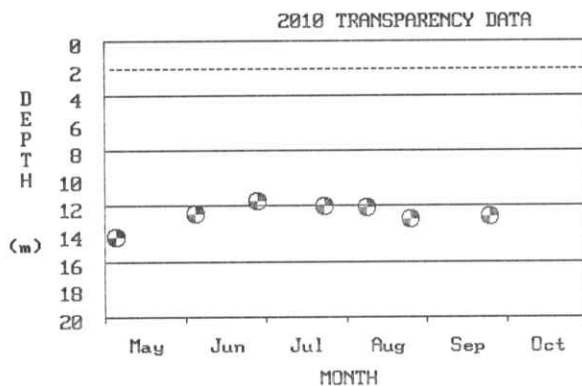
MAX. DEPTH: 32 m. (106 ft.)  
MEAN DEPTH: 13 m. (42 ft.)  
DELORME ATLAS #: 12  
USGS QUAD: FAYETTE  
IFW REGION B: Belgrade Lakes (Augusta)  
IFW FISH. MANAGMENT: Coldwater

#### TRUE BASIN CHARACTERISTICS

SURFACE AREA: 13.0 ha. (32.1 a.)  
FLUSHING RATE: 0.15 flushes/yr.  
VOLUME: 1671769.0 cu. m. (1356 ac.-ft.)  
DIRECT DRAINAGE AREA: 0.36 sq. km. (0.14 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. BASIN P has 1 True Basin(s).

#### SECCHI DISK TRANSPARENCY GRAPHS:



Note: 2010 graphs may indicate multiple readings taken on a given day.

#### SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

[\* indicates that Secchi disk was visible at bottom of lake (or one reading used in calculation was visible)].

YEAR	MEAN				COND.				TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPIC STATE INDICES			
	COLOR	pH	ALK			EPI	SURF	BOT.	PRO.											EPI PHOS			
	(SPU)		(mg/l)	(uS	/cm)	CORE	GRAB	GRAB	GRAB	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL			
1984	1	6.20	-	20	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
1999	12	-	3.0	25	3	-	-	12	12	12.7	12.7	12.7	1	1.9	1.9	1.9	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	8.0	8.0	8.0	1	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	10.3	11.8	13.7	4	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	12.7	14.1*	15.2*	6	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	13.2	14.7	15.8	6	-	-	-	-	-	-	5	-	-	-
2005	4	6.72	3.1	26	-	2	-	-	-	13.6	13.8	14.0	3	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	13.1	13.3	13.8	3	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	9.3	9.5	9.8	3	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	9.8	12.3	13.6	5	-	-	-	-	-	-	10	-	-	-
2009	-	-	-	-	4	-	-	17	-	10.2	11.3	12.4	5	1.1	1.1	1.1	-	-	-	13	-	-	-
2010	-	-	-	-	-	-	-	-	-	11.5	12.7	14.2	5	-	-	-	-	-	-	9	-	-	-
SUMMARY:	6	6.39	3.1	24	4	2	14	12	-	8.0	12.2*	15.8*11	-	1.1	1.5	1.9	-	-	-	9	-	-	-

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LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH	SAMPLE DATE				
	08/20/99		08/25/09		
m	°C	pdm	°C	pdm	
0.0	23.0	8.5	25.1	7.7	
1.0	22.9	8.6	25.1	7.8	
2.0	22.8	8.5	25.1	8.1	
3.0	22.8	8.6	25.1	8.2	
4.0	22.8	8.6	25.0	8.1	
5.0	22.8	8.6	22.4	11.2	
6.0	22.5	8.6	18.4	12.8	
7.0	20.1	13.0	15.3	12.7	
8.0	16.3	12.9	12.9	12.4	
9.0	13.4	12.6	11.2	12.7	
10.0	11.3	12.5	9.5	12.7	
11.0	9.8	12.4	8.3	12.3	
12.0	8.4	12.1	7.3	11.7	
13.0	7.3	11.7	6.6	10.5	
14.0	6.8	11.4	6.0	10.4	
15.0	6.2	11.1	5.6	9.8	
16.0	5.9	9.6	-	-	
17.0	5.6	8.6	5.1	9.4	
18.0	5.3	8.2	-	-	
19.0	5.0	6.9	4.8	8.5	
20.0	4.9	5.7	-	-	
21.0	4.8	4.1	4.5	7.4	
22.0	4.6	2.8	-	-	
23.0	4.6	2.3	4.5	6.4	
24.0	4.5	0.5	-	-	
25.0	4.3	0.2	4.5	2.6	
26.0	4.2	0.2	-	-	
27.0	4.2	0.2	4.5	1.4	
28.0	4.2	0.2	-	-	
29.0	4.1	0.2	4.5	0.8	
30.0	4.1	0.1	-	-	
31.0	-	-	4.5	0.4	

## **WATER QUALITY SUMMARY**

### **BASIN POND, Fayette**

Midas: 5654, Basin: Primary-01

The Maine Department of Environmental Protection (ME-DEP) and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate water quality, track algal blooms, and determine water quality trends. This dataset does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring datasets for Basin Pond have been collected since 1999. During this period basic chemical information was collected twice in addition to Secchi Disk Transparency (SDT). In summary, the water quality of Basin Pond is considered excellent based on measures of SDT, and total phosphorus (TP) and chlorophyll. The potential for nuisance algal blooms on Basin Pond is low.

Water Quality Measures: Basin Pond is a non-colored lake (color 6 SPU) with an SDT of 12.6 m (42 ft). The water column TP for Basin Pond was 3 parts per billion (ppb) and Chla was 1.9 ppb. Both values are very low, indicating this lake has exceptional water quality. The dissolved oxygen (DO) profile showed relatively little DO depletion in deep areas of the lake. The potential for phosphorus to leave the bottom sediments and become available to algae in the water column (internal loading) is slight. Oxygen levels below 5 parts per million stress certain cold water fish and a persistent loss of oxygen may eliminate or reduce habitat for sensitive cold water species. While some water met this criteria, the majority of the cold water at the time of sampling had adequate oxygen.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <http://www.lakesofmaine.org/> and/or <http://www.maine.gov/dep/blwq/lake.htm>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

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